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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/902,213	07/10/2001	Lee F. Holeva	98,169-A	9103

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EXAMINER

HAROLD, JEFFEREY F

ART UNIT	PAPER NUMBER
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2644

DATE MAILED: 08/23/2004

7

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/902,213

Applicant(s)

HOLEVA, LEE F.

Examiner

Jefferey F Harold

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 01 July 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 23-38 and 40-53 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 48-53 is/are allowed.
- 6) ☒ Claim(s) 23-27, 29-36, 38, 40, 41, 44 and 46 is/are rejected.
- 7) ☒ Claim(s) 28, 37, 42, 43, 45 and 47 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date 5.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

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DETAILED ACTION

Information Disclosure Statement

1. The references listed in the Information Disclosure Statement submitted on July 1, 2001 have been considered by the examiner (see attached PTO-1449).

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. **Claims 23-27, 29-36, 38, 40, 41, 44 and 46** are rejected under 35 U.S.C. 102(b) as being anticipated by Allen et al. (United States Patent 8,485,515), hereinafter referenced as Allen.

Regarding **claim 23**, Allen discloses a circuit for noise compensation in a telephone network. In addition, Allen discloses automatic noise compensation, which reads on claimed “automatic gain control” for providing automatic gain control with an adaptive gain level comprising:

a noise compensation system (14), which reads on claimed “automatic gain control circuit” to provide a modified speech signal, which reads on claimed “automatic gain controlled output signal”, as disclosed in figure 2;

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a signal boost circuit (25), which reads on claimed "output power block" for providing the output power of the modified speech signal, as disclosed at column 5, lines 15-30 and exhibited in figure 2;

the noise floor determination process is an iterative process that uses feedback based on the signal power to determine if the noise floor needs to be adjusted to follow changing level in the background noise, which read on claimed "adder for determining an error signal in accordance with the output power of the automatic gain controlled output signal", as disclosed at column 4, lines 47-59 and exhibited in figures 3 and 4;

a noise level estimation, which reads on claimed "gain lookup table", for storing gain values, wherein the noise level estimation is adapted in accordance with changing levels of the background noise, as disclosed at column 5, line 31 through column 6, line 41 and exhibited in figures 2 and 3.

Regarding **claim 24**, Allen discloses everything claimed as applied above (see claim 23) in addition Allen discloses wherein the automatic gain control is adapted to compensate for non-linearity in a microphone/codec, as disclosed at column 5, line 21-26 and exhibited in figure 5.

Regarding **claim 25**, Allen discloses everything claimed as applied above (see claim 23), in addition Allen discloses wherein the output power block estimates the output power according to a single pole filter, as disclosed at column 6, line 42 through column 7, line 33 and exhibited in figure 4.

Regarding **claim 26**, Allen discloses everything claimed as applied above (see claim 23), in addition Allen discloses wherein the adder determines the error

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signal with respect to a set-point reference signal, as disclosed at column 6, lines 16-41.

Regarding **claim 27**, Allen discloses everything claimed as applied above (see claim 23), in addition Allen discloses wherein the adder determines the error signal as the difference between the output power of the automatic gain controlled output signal and the set-point reference signal, as disclosed at column 6, lines 16-41.

Regarding **claim 29**, Allen discloses everything claimed as applied above (see claim 23), in addition Allen discloses a multiplier for scaling the error signal to provide a scaled output signal, as exhibited in figure 4.

Regarding **claim 30**, Allen discloses everything claimed as applied above (see claim 23), in addition Allen discloses an absolute value circuit for determining the absolute value of the automatic gain controlled output signal, as disclosed at column 5, lines 31-65.

Regarding **claim 31**, Allen discloses everything claimed as applied above (see claim 23), in addition Allen discloses wherein the automatic gain control is dynamically adapted to compensate for non-linearity in a microphone/codec as the AGC operates, as disclosed at column 5, lines 21-65 and exhibited in figure 7.

Regarding **claim 32**, Allen discloses everything claimed as applied above (see claim 23), in addition Allen discloses wherein the automatic gain control circuit comprises a closed loop AGC, as exhibited in figure 2.

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Regarding **claims 33-36, 38, 40, 41, 44 and 46** are interpreted and thus rejected for the reasons set forth above in the rejection of claims 23-27 and 29-32.

Allowable Subject Matter

3. ***Claims 48-53*** are allowed.
4. ***Claims 28, 37, 42, 43, 45, and 47*** are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

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Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jefferey F Harold whose telephone number is 703-306-5836. The examiner can normally be reached on Monday - Friday 9 am - 5:30 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Forester W Isen can be reached on 703-305-4386. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Jefferey F Harold
Examiner
Art Unit 2644

JFH
August 11, 2004